

1 Introduction

With respect, this response provides reasons why the present application does not double patent a previous invention by the applicant. It also shows why the present claims do not fairly read on the prior art of GOULD, USPTO 6,505,209.

The prior art cited by the office action is so distant from the present invention that it is irrelevant. Accordingly, I did not cite it myself in the original patent application. This was done on the advice of a USPTO examiner who requested that I avoid sending them “useless or irrelevant” prior art references that they had to review unnecessarily.

Perhaps my course of action was not the wisest one, because here I must show non-obviousness over the same prior art anyway. As a first time pro se applicant, it is difficult for me to determine whether or not I should include some irrelevant prior art (as perceived by me), if only to show that I did search for relevant prior art.

2 My Special Definitions and Terminology

This section shows that I act as my own lexicographer, and give special meaning to the keyword “collection” and derivative terms such as “collection specifier,” “collection content,” “collection type,” “collection type definition,” and “Collection Command Applicator.”

2.1 I act as my own lexicographer and define special meanings for key words.

As permitted by patent laws, I act as my own lexicographer and define special meanings for key words in the present application. My non-dictionary meanings of words such as “collection” are commonly misconstrued by patent examiners.

For example, Canadian patent examiners would often perform a simple text search of the prior art using the keyword “collection” to identify possible relevant prior art. However, the prior art found in this way always used the keyword “collection” for its normal dictionary meaning. As you can see, irrelevant prior art patent might use the word “collection” in the dictionary way. Yet the Canadian examiners cited the found search results as relevant prior art anyway. This practice does not seem fair or proper to me, citing irrelevant prior art on the basis of a keyword search.

I respectfully request that USPTO examiners consider my special lexicographic definitions when they cite prior art against the present application. As one USPTO examiner told me, “responding to irrelevant prior art is a waste of everyone’s time.”

2.2 Definition of “collection”

From the application (page 16), “Collection is a term that refers to the union of a collection specifier and a set of collection content.”

In essence, a collection is a software “container” (a software data structure abstraction) that enables automated computer programs to “see, grasp, and manipulate” sets of related computer files.

Technically speaking, collections are inventive data structures whose existence is marked by a special file (collection specifier) that must associate itself with a specific user-defined set of rules (collection data type) for processing the collection. The processing rules are implemented in a special file (collection type definition) that is stored external to the collection, and that can be shared among all collections that associate themselves with that particular data type.

2.3 Definition of “collection specifier”

From the application (page 16), “Collection specifiers contain information about a collection instance.”

For example, collection specifiers may define such things as the collection type, a text summary description of the collection, collection content members, derivable output products, collection processing information such as process parallelism limits, special collection processing steps, and program option overrides for programs that manipulate collections.

Collection specifiers are typically implemented as simple key-value pairs in text files or database tables. FIG 3 shows an example physical representation of a collection specifier 102, implemented as a simple text file such as would be used on a typical personal computer filesystem.

2.4 Definition of “collection type definition”

From the application (page 16), “Collection type definitions are user-defined sets of attributes that can be shared among multiple collections.” In practice, collection specifiers contain collection type indicators that reference detailed collection type definitions that are externally stored and shared among all collections of a particular type. Collection type definitions typically define such things as collection types, product types, file types, action types, administrative policy preferences, and other information that is useful to application programs for understanding and processing collections.

2.5 My inventive collections are not part of the prior art

My inventive collection data structures, and the methods and apparatuses for processing collections, are the subject matter of my patent applications.

My inventions do not read on the prior art, since my applications are based on practical, novel, and non-obvious data structures that are not described in the prior art in any convincing way, and so my claims should be allowed.

3 My Claims Recite Specific Inventive Structures

The office action rejects many of my claims and makes the argument that my claims read on the prior art, specifically on GOULD (US Patent 6,505,209). Other prior is cited as pertinent, but is not used as justification for rejecting my claims.

I disagree with the office action because my claims recite many novel inventive data structures and processes that are not shown by the prior art. GOULD does not fairly teach the inventive principles or structures of my Collection Command Applicator invention. It is not obvious how a person of ordinary skill in the art could infer my inventive principles and structures by reading GOULD.

3.1 Summary of the present Collection Command Applicator invention

The present Collection Command Applicator invention discloses a system and method for automatically applying computer commands to a set of *collections*—which are particular inventive data structures—in accordance with processing order interdependencies among collections in the set.

- The main problem solved by the present invention is—*without interactive human participation—how to automatically apply computer commands to collections in proper processing order.*
- The main inventive principle of the present invention is *using an external knowledge base of predefined collection type definition information to dynamically determine processing interdependencies among collections being processed.*
- The main inventive features of the present invention are *inventive collection data structures, collection specifiers, collection types, collection type definitions, and collection dependency relationships.*
- The main result of the present invention is *an inventive Collection Command Applicator system and method for automatically and dynamically determining processing interdependencies among collections within a computer filesystem, for the purpose of automatically processing collections in proper processing order, with no human labor involved.*

3.2 My claims recite specific inventive data structures in Wherein Clauses

My claims are limited by recitation of specific inventive data structures as follows:

- My claims all contain “wherein” clauses that recite my inventive data structures, thereby limiting my claims to my own inventive work.
- Each wherein clause severely limits one of my claims to the specific inventive collection data structures described in my application.

The office action does not show a convincing line of reasoning that suggests how a person of ordinary skill in the programming arts would be able to reach my inventive data structures and features by reading the cited prior art.

4 Response to Prior Art of GOULD

The Applicant requests reconsideration and withdrawal of all prior art objections because there are many reasons that the present invention is not obvious after the cited prior art. A supporting analysis is presented below.

4.1 Summary of GOULD

GOULD discloses a system and method for viewing and navigating hypergraphs. For example, GOULD’s primary claim begins with the phrase, “A method of navigating a collection of nodes, ...” (Note that GOULD uses the common dictionary meaning of collection, and does NOT refer to my special lexicographic use of the word.)

- The main problem solved by GOULD is how to display and navigate all references to a particular node in a hypergraph, where the list of all referencing nodes is called a context list.
- The main inventive principle of GOULD is the display of a particular node and a context list of all nodes that reference the particular node, for the purposes of navigation among nodes. (GOULD only suggests routine prior art means for calculating the context lists of the hypergraph.)
- The main inventive feature of GOULD is a particular method for displaying and navigating hypergraph data using a computer display screen.
- The main result of GOULD is a system and method for displaying and navigating hypergraph data using a computer display screen.

The claims of the present invention do not read on the GOULD disclosure in an obvious way, as the following points demonstrate.

4.2 GOULD solves a different problem.

GOULD solves the problem of *how to display and navigate all references to a particular node in a hypergraph, where the list of all referencing nodes is called a context list.*

The present invention solves the problem of—*without interactive human participation—how to automatically apply computer commands to collections in proper processing order.*

The two problems are very different, making the present invention not obvious from GOULD.

4.3 GOULD does not show the inventive principle of my invention.

GOULD does not show, nor teach toward, the inventive principle of the present invention.

The main inventive principle of GOULD is *the display of a particular node and a context list of all nodes that reference the particular node, for the purposes of navigation among nodes. (GOULD only suggests routine prior art means for calculating the context lists of the hypergraph.)*

The main inventive principle of the present invention is *using an external knowledge base of predefined collection type definition information to dynamically determine processing interdependencies among collections being processed.*

The two inventive principles of operation are very different, making the present Collection Command Applicator invention not obvious from GOULD.

4.4 GOULD does not show the inventive features of my invention.

GOULD does not show, or teach toward, any of the inventive features recited in the claims of the present Collection Command Applicator invention.

The main inventive feature of GOULD is *a particular method for displaying and navigating hypergraph data using a computer display screen.*

The main inventive features of the present invention are *inventive collection data structures, collection specifiers, collection types, collection type definitions, and collection dependency relationships.*

The number and character of these distinct inventive features show clearly that the present Collection Command Applicator invention is not obvious from GOULD.

4.5 GOULD does not show the unexpected results of my invention.

The main result of GOULD is *a system and method for displaying and navigating hypergraph data using a computer display screen.*

The main result of the present invention is *an inventive Collection Command Applicator system and method for automatically and dynamically determining processing interdependencies among collections within a computer filesystem, for the purpose of automatically processing collections in proper processing order, with no human labor involved.*

Furthermore, the act of *applying computer commands to sets of collections in proper processing order* enables collection-aware application-level programs to dynamically manipulate arbitrary sets of collections in accordance with their processing interdependencies (through collection types), with no human labor involved.

This unexpected result—of being able to understand processing interdependencies among arbitrary sets of existing collections, and being able to apply arbitrary computer commands to those collection data structures automatically—frees human operators from having to interactively understand the processing interdependencies within a set of collections while processing the set of collections.

GOULD does not teach this unexpected result. This demonstrates that the unexpected results of the present Collection Command Applicator invention are not obvious from GOULD.

4.6 GOULD teaches away from my invention regarding need for human users.

GOULD teaches a system and method for helping human users to navigate nodes in a hypergraph. GOULD therefore teaches that human users are required in his system.

In contrast, the present invention teaches about a totally automated Collection Command Applicator for use with totally automated collection processing systems, which require no human labor at all.

GOULD therefore teaches away from the present Collection Command Applicator invention concerning the need for human users, which makes the present invention not obvious from GOULD.

4.7 GOULD does not suggest modifications to meet the present claims.

GOULD does not teach—or even suggest—that his hypergraph display system could be modified in an obvious way to meet the claims of the present invention. Accordingly, it is reasonable to conclude that the present Collection Command Applicator invention was not contemplated by, nor was obvious to GOULD, and is not obvious to a person of ordinary skill in the art.

4.8 No convincing reasoning for obviousness has been presented.

The points above show that GOULD solves a different problem and does not show any of the inventive principles, features, or results of my invention.

Accordingly, the office action has not presented a convincing line of reasoning for explaining why a person of ordinary skill in the art would find the claimed subject matter of the present invention to be obvious after the cited prior art.

The lack of a clear line of reasoning in the office action suggests that the claim of obviousness cannot be easily justified, and that the present invention is not obvious from the cited prior art.

4.9 The present invention has not been implemented before.

The prior art lacks any mention of the present invention *for inventive collection data structures*, and lacks any implementations of the present invention.

It follows that the present invention is not obvious to the prior art, else those of ordinary skill in the art would have implemented the present invention by now, in order to capture the many benefits of the present invention.

4.10 The present invention is contrary to the prior art.

The prior art clearly teaches application program designs that require human operators—using multiple, tedious operations—to provide various inputs to computer programs, and to tell application programs which files to use.

For example, GOULD, in the prior art cited by the office action, teaches the use of human users to manipulate the display of hypergraph data, for the purposes of interactively navigating through nodes in a hypergraph.

In contrast, the present invention is intended for use by totally automated computer systems, with no human labor required.

It follows that the present invention is not obvious to those of ordinary skill in the art because the inventive principle of the present invention is contrary to the prior art.

5 Responses to Specific Claim Rejections

The following sections respond to specific assertions and rejections in the office action.

5.1 Response for claim 1

The office action argues that the claims double patent the invention allowed in my previous patent USPTO 6,768,989 Collection Recognizer. The office action admits that the claims are clearly not identical, but argues that they are not patentably distinct from each other.

I disagree that the claims are patenting the same invention, and that the claims are not patentably distinct from each other.

First, one invention *calculates* a list of collections, and the other *uses* a list of collections.

- Claim 1 of 6,768,989 in step 1, recites “*receiving a request for information about detected collections*”. The job of the invention in this case is *to discover that information*, and return it to the request originator.

- In contrast, Claim 1 of the present invention, in step 1, recites “*obtaining a list of collections for processing.*” The job of the invention in this case is *to use* the list of provided collections by *applying computer commands to the list of collections.*

Second, one invention *searches for collection signatures*, and the other invention *applies computer commands to a provided list of collections.*

- Claim 1 of 6768989, in step 2, recites a method for *dynamically discovering* collection data structures by *searching for collection signatures within a filesystem.*
- In contrast, Claim 1 of the present invention, in step 2, recites a method for *applying computer commands* to collections on a list of provided collections.

Even though the current claims are clearly not duplicates of previous claims in any way, I have rewritten all claims in the present invention to further distinguish them from the claims of my previous invention.

5.2 Response for claims 21, 28, 35

GOULD teaches that a human selects a first node, and a machine determines a list of all nodes referencing the first node by *querying in some manner* to search for referencing nodes.

In contrast, my revised claims recite that my automated invention *receives* a list of collections from a request originator (no querying is involved), and then *applies commands* to the received list of collections.

Therefore my claims do not fairly read on the prior art of GOULD.

5.3 Response for claims 22, 29, 36

GOULD teaches that nodes in a hypergraph should be displayed in an ordered fashion on a computer display device, for convenient interactive navigation by humans.

In contrast, my revised claims recite that my automated collection command applicator invention should sort the list of collections to be visited into a proper processing order according to internal interdependencies among collections in the list of received collections.

Therefore my claims do not fairly read on the prior art of GOULD.

5.4 Response for claims 23, 30, 37

GOULD teaches that a computer program can display the first node in a context list of other referencing nodes.

In contrast, my revised claims recite that my collection command applicator invention should obtain sorting criteria information from the sources of collection specifier information, collection type definition information, and collection content information.

Therefore my claims do not fairly read on the prior art of GOULD.

5.5 Response for claims 24, 31, 38

GOULD teaches that file manager displays are commonly used on many operating systems to enable human users to view files (nodes) and their contents.

I have deleted the original claims that related to this objection.

5.6 Response for claims 25, 32

GOULD teaches that concurrent (parallel) operations are possible within certain embodiments of his inventive display and navigation system. However, his parallelism is limited to display algorithms for his navigation invention. GOULD suggests nothing at all about how to apply computer commands to collection data structures, using a mix of sequential and parallel processing techniques, direct or indirect, while maintaining proper processing order among the subject collections.

In contrast, my claims recite that my automated invention uses an inventive command execute parallel method to apply computer commands to collections in parallel, while maintaining proper processing order.

Therefore my claims do not fairly read on the prior art of GOULD.

5.7 Response for claims 26, 33, 39

GOULD teaches that his display and navigation system can perform some display and navigation operations sequentially and concurrently.

In contrast, my revised claims recite that my inventive collection command applicator method can use an indirect command execution means to avoid the costs of regenerating an executable script for each command that is applied to a list of collections.

Therefore my claims do not fairly read on the prior art of GOULD.

5.8 Response for claims 27, 34, 40

GOULD teaches in FIG 38 a flow chart for part of his display and navigation system. The office action does not provide a reasonable description of how this figure relates to the claims being objected to.

My revised claims recite that my automated invention can execute commands in directories that are nearby to the root directory of collections being processed. For example, my invention can execute commands in the parent directory or in a particular child directory of a collection.

Therefore my claims do not fairly read on the prior art of GOULD.

6 Request to Replace Original Claims with Revised Claims

Please replace all original claims 21-40 with the revised set of claims 41-53 included herein.

7 Request for withdrawal of all USPTO objections

I have explained why the present invention is not obvious after the prior art GOULD that was cited by the office action.

I have also rewritten all claims to more clearly distinguish them over the prior art, and over potential confusion with the claims of my previous invention USPTO 6,768,989.

The applicant respectfully submits that the present application is not obvious after GOULD, and that all revised claims comply with USPTO patent laws. Accordingly, the applicant respectfully requests reconsideration and withdrawal of all objections.

I hope that this response will allow continued prosecution of my patent applications. If you require more changes, I would be happy to carry them out.

Respectfully yours,

A handwritten signature in black ink, appearing to read 'K Jameson', with a stylized flourish at the end.

Kevin W Jameson
Inventor Pro Se